Lesson 24 - Selection And Storage Of Most Wholesome Foods, Part I

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1. Changing To A Nutritionally Superior Diet

1.1 Raw Food

It is relatively simple to plan an optimally nutritional diet. For optimum nutrition, eliminate the denatured foods, and enjoy the greatest possible variety of raw fruits and vegetables, as they are seasonably available, plus approximately two to four ounces of raw, unsalted nuts and seeds per day, in addition to sprouted seeds and grains.

If you persevere in adhering to this all-raw food diet, you will eventually achieve the highest pinnacle of health possible for you. Those who are willing and able to quickly progress to an all-raw food diet from the plant kingdom will have amazing and seemingly miraculous health improvement and potential for longevity.

1.2 The 80% Raw Food Diet

If you are not yet willing or able to change to the all-raw food diet, a good start is the 80-90% raw food diet. If you have been a conventional eater and now concentrate on the use of uncooked foods to this extent, you will achieve a radical improvement in your food program, and, consequently, in your health.

As indicated in Lesson 22, an 80% raw food diet is not difficult to achieve. It can be appetizing, interesting, varied, satisfying end economical. The best plan is never to eat cooked food more than once a day, as part of one meal. Try for more and more days on raw food only.

1.3 Body Chemistry

The English poet, John Dryden, said, "We first make our habits, and then our habits make us."

As indicated in Lesson 22, the body chemistry is largely determined by the food that is eaten. When the diet is altered and the new diet maintained for a given length of time, the enzymes, body fluids and glandular secretions become increasingly adapted to the influences and requirements of the new food-just as they necessarily adapt to the junk foods that are eaten. *The important difference is that the adaptation to the junk foods involves health deterioration, while the readjustment to a nutritionally superior diet is in the direction of improved health*.

If you live on a conventional diet, which by all the recognized standards is said to contain enough nourishment, that diet will still fail to support normal physiology. The percentage of raw food is usually very small and, except for the fresh fruits and vegetables (usually a very small amount), practically everything in the conventional diet has been denatured.

Long-term storage of food, careless handling in shipping, and the refining, preserving and cooking processes destroy delicate and tender vital food factors and flavor. These altered foods become dull, flat and insipid, requiring seasonings to make them palatable. A future lesson will discuss in detail the destructive effects of all these processes.

The addition of vitamins to such diets will not render them adequate. Humans have not learned to create living substances. They cannot synthesize living substances in the laboratory, only chemical imitations. Neither can they extract them, in the kitchen or in the laboratory, without greatly impairing or destroying their food value. A more comprehensive discussion of the futility of the use of food supplements to replace missing elements in food and the actual harm that they can cause, will be given in a future lesson.

1.4 Organically Grown Food

A plausible argument has been offered that foods which are not organically grown are deficient in vitamins and minerals, and therefore we should take supplements. The superiority of organically grown foods is undeniable, but this problem cannot be solved, or even palliated, by taking nutrients out of their proper context.

Furthermore, whether or not an orange is organically grown, it still contains Vitamin C—the orange cannot be grown without it. It is true that the total nutritional value is impaired by the use of the chemicals, yet it is not totally destroyed.

But, as to the argument that commercially grown foods are practically devoid of nutrients-that is not biologically possible. Fresh, good-tasting food must contain substantial quantities of nutrients, regardless of how it was grown.

You should certainly make Herculean efforts to grow your own fruits and vegetables to the greatest extent possible. For whatever food you cannot grow yourself, you should try to secure as much organically grown as possible. For the rest, you should obtain the freshest, best quality obtainable, and you will achieve far better health than conventional eaters, plus a "serendipity" bonus: Dr. Burton says that Hygienists can save up to 30% on their food bills and up to 74% on their medical care bills. This lesson will help you in your quest for the best food available.

1.5 The Vegetarian Diet

Some people have misgivings about changing to a vegetarian diet. They may be worried about complete proteins, essential amino acids, or obtaining all of the amino acids at every meal. These are groundless concerns. All nuts, except the hickory, contain complete proteins, with all the essential amino acids—verified through experiments by Cajori, Kellogg and Berg. In addition, a generous supply of raw green

leafy vegetables, sprouted seeds and grains, and raw fruits, will assure an adequate supply of all nutrients needed in the diet.

These nutrients are stored in the body and utilized by the cells as needed. If the body were not capable of storing nutrients, we could not fast for lengthy periods. Nowhere in Nature is there any evidence of the necessity for complicated maneuvering to obtain all of the essential amino acids at each meal.

You may be concerned about Vitamin B-12 and fearful that, on a preponderantly vegetarian diet, you might become a victim of pernicious anemia. But the fact is that more meat eaters than vegetarians suffer from this affliction. Pernicious anemia appears to arise, not from a shortage in the diet, but from impairment of the ability to absorb B-12. Study after study has revealed that this deficiency is due not to dietary inadequacy, but to failure to absorb the vitamin from the intestinal tract.

Putrefactive bacteria can destroy friendly bacteria, thus inhibiting the synthesis and absorption of B-12. Putrefaction in the digestive tract can be caused by the ingestion of flesh foods, bad food combining or overeating of concentrated proteins.

A more exhaustive analysis of the myths surrounding Vitamin B-12 will be given in a future lesson. In this lesson, it is simply desired that you establish in your mind that the foods recommended for your selection are the best of all possible foods.

A future lesson will deal at length with the destructive effects of flesh foods.

For the present, in order to establish in your mind the advisability of omitting flesh foods from your shopping list, a few points on this subject will be made.

The best protein foods for humans are raw, unsalted nuts and seeds. Dr. Hoobler, who did some research at Yale University, proved conclusively that the protein of nuts and seeds provides greater nutritive efficiency than that of meat, milk and eggs. *And of course, nuts and seeds have the distinct advantage over animal foods of being delicious in their fresh, raw state*.

John A. Scharffenberg, M.D., Director of Community Health Education at San Joaquin Community Hospital, Bakersfield, California, has marshaled the scientific evidence against flesh foods in his book, "Problems with Meat."

A meat-based diet is deficient in natural carbohydrates and fiber, high in saturated fat and excessive in protein, resulting in bone degeneration and greater work for the kidneys and liver. It can lead to calcium and vitamin deficiencies and a shortened life span.

Dr. Lendon Smith, M.D., from Portland, Oregon, incorporates in his writings many of the same ideas Hygienists have been advocating for years. On the Phil Donahue show (WTSP-TV, September 8, 1980) he recommended using nuts, seeds and legumes instead of meat. He said a bowl of lentil soup has as much good protein as a beefsteak. In fact, he emphasized that meat is not a good food, and his family does not use it more than once or twice a month. He said milk causes many problems and that people should eat as much raw food as possible—raw fruits, vegetables and nuts and seeds. He advised that foods processed by humans should be avoided, and he specifically' mentioned the lack of nutritional value of boxed cereals. He declared that when a person gets sick, there is always a diet, component in the cause, and he advocated fasting one to four days for alleviation of minor problems.

It is true that it is possible to experience a protein deficiency on a poorly-planned diet. An adequate supply of protein in the diet is indispensable to normal health and well-being, and a protein-deficient diet will certainly not contribute to your health and longevity. But an adequate diet is not dependent on animals for food, nor is it necessary to play a numbers game with amino acids at each meal. My book, *"The Happy Truth about Protein,"* gives more details on this subject.

In fact, humans are dependent on the plant kingdom for their nourishment. If they do not get it first-hand by eating plants, they get it secondhand by eating animals that have eaten plants.

A study by the Washington, D.C.-based Environmental Defense Fund revealed that the breast milk of

vegetarian women contained significantly lower levels of pesticide residues than that of meat-eating women. This could have a relationship to the ability of the fiber in the plant foods to help in the removal of pesticides from the body. Another reason for lower pesticide residues in the bodies of vegetarians is the fact that plants contain lower levels of pesticides than do flesh foods.

Vegetables and nuts contain about 1/7 the pesticide residues of flesh foods, fruits and legumes about 1/8 as much, and grains about 1/24 as much. This is due to the *concentrating* factor, as the contaminant goes through the additional link in the ecological chain, and the animal concentrates the pollutant in its body.

Actual tests in Great Britain have shown the pesticide level to be highest in meat-eaters, lower in lacto-vegetarian (that is, vegetarians who use dairy products) and lowest in total vegetarians.

The Environmental Protection Agency did a study (about 1979) with laboratory rats, showing that dietary fiber helped remove pesticides from their bodies. The study pointed out that fiber is not just an inert substance that provides "roughage," but has some qualities that are just coming to light.

This particular study showed that pectin (a form of fiber found in fruits and succulent vegetables) could significantly affect the body's metabolism of at least one pesticide—lindane. (Organic Gardening, July 1979)

The best source of dietary fiber is whole foods. The use of a fragmented food, such as bran, in an attempt to add supplementary fiber to a deficient diet, only causes more problems. It is not in a form readily acceptable by the body without stress, may cause a loss of vital mineral elements, and its action is similar to that of a laxative, ultimately resulting in inhibition of the body's ability to act for itself.

An intelligently planned vegetarian diet has none of the disease problems associated with the use of meat, and provides a dependable source of all the nutrients, including protein.

If you eat a generous amount of raw food and include approximately two to four ounces of nuts and seeds daily, as well as sprouts, greens and fruits, you cannot help but get an adequate supply of protein, vitamins, minerals, enzymes, hormones-and chlorophyll, such as only green plants can supply. And this is a foolproof diet that will contribute to health improvement and longevity.

2. Let's Go Shopping

Even those who have a sizeable organic garden must track down and purchase many of the foods they require. When the weather is warm, take along a picnic coder with ice for transferring perishable food. Much damage can result from alternately cooling, warming, and again cooling your produce. It is even a good idea to carry a cooler when the weather is cold if your car is heated.

Your greatest concern will be produce—good quality fruits and vegetables. It is sometimes possible to locate organically grown produce, but if not, get the freshest, best quality obtainable and you will still come out ahead, as there will be much less waste. Sometimes you can, just by trying and not giving up, locate individuals in your own area who are growing organically for their own use and have some surplus to share. If your local health food store has a bulletin board, you might try to reach these local growers by expressing your interest there in contacting them.

It is not always practical to have fresh produce shipped in from distant cities, but there are some instances when it is advisable to do this. If you live in a climate where the growing season is short, produce can be shipped by air freight from California but the transportation cost may be greater than the cost of the food. If you join with other people and buy in bulk quantities, it might be more economical.

Even when buying food locally, you may find that starting a food-buying co-op would be very worthwhile if this enables you to buy direct from a wholesale food distributor in your area.

You can grow some of your own food. I once grew lettuce in a large crate on the porch. You can find some local sources of organically grown food. Locally grown produce, in season, is always the best—fresher, better-tasting because it is not picked prematurely, and more economical. You can at least obtain organically grown nuts and seeds from distant shippers, and sometimes from your local health food store.

For that portion of your food that you cannot obtain organically grown, just get the best quality obtainable, selected, stored and eaten in accordance with Hygienic principles, and, as previously indicated, you may rest assured that your health will be far better than that of those on conventional diets.

Shop around and find the stores or produce departments that do the best job in your area. Get friendly with the produce people and they will cooperate with you in your efforts to locate the best produce, especially when they learn that you do all your major purchasing in the produce section. You might even be able to persuade the owner of a produce business to keep his eyes open for organically grown food from local farmers who come to the wholesale produce markets, or even to locate organically grown produce in distant cities, and have it shipped in to sell at retail. We developed such a source in our area in Florida and enjoyed a plethora of organically grown produce for five years—last year the man retired, and we are still trying to replace him.

In season, shop the transient roadside truck merchants—early in the morning, before the sun has done its wilting job on the produce. You will probably have to shop the supermarkets for some of your produce. Most produce managers will allow you to break open the pre wrapped packages of produce and select the best, especially if you are a good customer. Sometimes, if you ask, they will bring out fresher produce from the refrigerator and allow you to select directly from the crates.

This lesson will continue with information on how to judge and select your produce and other foods. You will not need to be greatly concerned about additives in packaged, frozen or canned foods, because you will not be using these items. If you do buy anything that is packaged, frozen or canned, be sure to read the labels and don't buy anything that contains chemicals.

3. Fruits

Fruits are the most delightful of foods. They are also of great nutritional value because they possess most of the essential minerals and vitamins necessary for optimal health.

A variety of fresh fruits are available throughout the year. Fortunately, bananas are always in season. They are a staple part of the Hygienic diet, being high in nutritional value and even containing 1.1% protein, about the same as mother's milk. Most other fruits have a season in which they are most economical and flavorful.

Good watermelons start coming in May. Pineapples and strawberries are also in season at the same time, and the oranges and pears are still available and reasonable in price.

In June, a plethora of fruits appear: a variety of all kinds of melons, peaches, cherries and berries. As oranges and pineapples dwindle—around July—the grapes, nectarines and plums come in. All through the summer, you have a veritable horn of plenty of many varieties of fruit.

Then, in the fall, the apples are in season, along with the citrus and pears, while the grapes are still available.

The information in this lesson about the peak seasons of specific fruits and how to choose them wisely will help you not only to get the best for your money, but also the best for your health and nutrition.

Since the average diet is too high in protein, adding fruit to the diet is beneficial. A fruit diet is "cleansing" because it is lower in protein. This results in the cells drawing upon the body's store of nutritional reserves, and initiating the elimination of the accumulated wastes and poisons, much of which are the by-products of the over-consumption of protein. The fruit, though, is not itself cleansing; it merely causes less burdening of the body than most food, and allows the body to do its own "cleansing."

Fruits contain large percentages of sugars and free acids that are favorably utilized by the body, unless consumed in greater amounts that can be processed efficiently.

Claims are made that certain fruits have "curative" or "magical" properties—that such fruits as apples, apricots, papayas or grapes will "cure" what ails you. Hygienists know that food is used for its nutritional value, not for some hoped-for special influence on the body. Apples, apricots, papayas and grapes are excellent fruits and should be used, along with other varieties of fruits, as they become seasonally available.

3.1 How to Judge and Select Fruits

General Suggestions:

1. Buy in season when quality is highest and prices lowest.
2. Don't buy more than you will use before they perish. The sooner you use your ripe fruit, the more flavor and nutritional value it will contain.
3. Don't buy damaged fruit unless damage is slight and you will use it immediately.
4. Handle displayed fruit carefully so you don't ruin it for others.
5. Fruit should be eaten when ripe—not green or overripe. Some fruits may be purchased green and ripened at home. This information will be included under specific fruits.

The trouble with many fruits available today is that they are picked while still immature and thus never have a chance to develop properly to their full potential of taste and nutritional value.

The season for marketing fruit has been overextended, and out-of-season, expensive and tasteless fruit is often available. Don't buy fruits out of season.

Unfortunately, most fruits are grown in soil that is fed chemicals to increase productivity, and the fruit is sprayed with chemical pesticides. The thick rind of pineapples, melons, bananas, mangos and avocados gives the underlying flesh natural protection against most of the chemical sprays. For other fruits, you cannot do much more than give them a thorough washing and scrubbing, and hope for the best. Peel them, if you like. If you must peel your fruit, don't cut too deeply; try to discard the thin skin only. The greatest concentration of nutrients is just under the skin.

Grapes and cherries have no protection against high levels of chemical residues. Don't eat large quantities of these fruits unless organically grown, and don't eat them every day, in season.

Apples, pears and plums are commonly waxed to give them a glossy look—it is best to peel them.

Fruit is most luscious if it is picked from the tree when it is just at the peak of its ripeness. Wherever you live, try to have and nurture some of your own fruit trees. No store-bought fruit can approach freshly picked ripe fruit for flavor and quality.

Whenever possible, buy fruit from the farmer—you may get fruit almost as good as you could grow yourself. You might even be fortunate enough to find a local organic fruit farmer.

Most people are dependent on markets for most of their fruit. It is necessary to cultivate the ability to judge the ripeness and quality of the fruit you buy. This ability will come with experience, though the best of us can sometimes still be misled.

There are several things to check. First, if it's fresh, it looks fresh, not wrinkled or blemished. The color should be characteristic of the ripe fruit. If it is misshapen, it is usually inferior in taste and texture, and there will be more waste. Medium sizes are generally better than very large or very small.

Ripe fruits, regardless of whether they belong to the acid, subacid or sweet classification, possess a certain sweetness, and, in most instances, it is possible to judge ripeness by appearance, fragrance, touch, and, of course, taste.

Unripe fruit is highly indigestible and usually quite unpalatable. It may contain starch and other carbohydrate substances which are distasteful and unwholesome. Overripe fruits may be even worse. When decay begins, the sugar is changed to carbon dioxide, alcohol and acetic acid (fermentation) and the fruit rapidly deteriorates in wholesomeness, nutritional value and taste. It loses water and becomes spongy, mealy and insipid.

Fruit is potentially alkaline, that is, it produces an alkaline ash after it has passed through the process of digestion. If the fruit is of poor quality, or unripe or overripe, especially if it is fermented, it produces an acid reaction in the body and its absorption creates many unpleasant symptoms, such as nervousness and insomnia, as well as digestive and "allergic" problems.

If fruit doesn't taste right, discard it. It is better to "waste" some food than to waste your health.

Since vine-ripened fruit is too soft to withstand much handling en route from farm to supermarket, most fruit bought in the market was picked when mature (we hope!) but not yet ripe. Most of the fruit available in supermarkets is not intended to be eaten immediately, but needs a day or two at room temperature to fully ripen. Problems in attaining proper ripeness occur when fruit is picked before it is fully mature. Usually, an indication of the beginning of the ripening process is a signal to pick the fruit for marketing.

Most ripe fruits have lost all traces of hard spots, but are not mushy. Many ripe fruits exude a delightful, but delicate fragrance. As a rule, you should buy fruits which are almost ripe, and eat as soon as flavor peak is reached (or refrigerate when ripe and eat as soon as possible thereafter).

Bananas, avocados and some other fruits may be purchased green and ripened at home. Fruits which are to be ripened at home may be "displayed" on trays on the kitchen counter during the day, and put into brown paper bags at night, to shelter them from insects. To accelerate ripening of very hard fruit, put it in a brown paper bag with an apple or banana (day and night). Apples and bananas emit a kind of natural ethylene ripening gas.

Most fruits will be discussed specifically in this lesson. When available, varieties of specific fruits are listed, no attempt is made to list every variety grown. For such complete listings, see Rodale's *How to Grow Vegetables and Fruits by the Organic Method*. Some exotic tropical fruits which are not generally available in the marketplace are omitted, principally because no first-hand information is available about them, other than that which is included in Dr. Esser's Dictionary of Man's Foods and other reference books which give no marketing information.

Specific Varieties of Fruits (alphabetically):

Apples

The peak season for apples is October through March. The principal varieties of eating apples include Golden Delicious, Red Delicious, Pippin, Golden Grimes, McIntosh, Jonathan and Winesap. The peel is rich in vitamins, but, if purchased in the supermarket, it will probably be waxed and contain pesticide residues. In fact, I myself never use commercially grown apples. It is my understanding that more pesticides and chemicals are used on apples than on any other fruits, and that the tree itself is poisoned, so that any insect that bites the apple will die. The human who eats the apple will survive, but I choose not to eat such apples.

Winesap, McIntosh and Golden Grimes apples are available in the fall, Jonathans and Delicious in the winter. Delicious apples are the sweetest.

Apples should be firm and crisp with bright and shiny skin. Color is a sign of maturity in apples—high color indicating maturity—and only apples picked when mature will have good flavor and texture. Apples that yield to pressure on the skin will have soft, mealy flesh. Bruised areas are usually a sign of rough handling or exposure to frost.

The apple is an excellent food, nutritionally speaking. It is also one of the most practical, since it can be shipped and stored for many months, though, of course, long storage results in some loss of nutrients.

Apricots

The peak season for apricots is June and July. Apricots are a nutritionally excellent food but they have a very short season and a very short life. Look for (but you will seldom find) plump, juicy-looking apricots, with a uniform golden-orange hue. When ripe, they will yield slightly to gently pressure. If the fruit is hard, pale yellow or greenish yellow, these are indications that it was packed too soon and will never progress to the proper ripeness and delicious taste. They will simply become mushy or rot.

Larger apricots tend to ripen more quickly. Avoid fruit that is green at the stem end. Apricots are ripe when they turn from yellow to orange.

Once I found a crate of "just-right" large apricots at the wholesale market in Tampa, in time to be served at a Hygienic luncheon for the members of our local American Natural Hygiene Society chapter. That was about seven years ago, but I still remember the luscious taste. It is almost impossible to find such apricots in the markets, unless you happen to be in the right place at the right time, and know enough to recognize and quickly acquire them. Apricots are rarely found in the markets at their best, because of premature harvesting.

Ordinarily, we must settle for sun-dried, organically grown soaked apricots, which are an acceptable substitute, and much better than the disappointing "fresh" apricots usually available. Buy dried apricots from Jaffe Brothers or at a health food store. Dried fruit sold at supermarkets has usually been treated with sulphur dioxide or hydrogen peroxide, to preserve the fruit and retain the bright color. These substances destroy the value of the food and cannot be washed off, since the chemicals are absorbed into the fruit.

Experiments conducted by dr. H. W. Wiley, formerly chief chemist of the U. S. Department of Agriculture, demonstrated that the use of sulphurous acid in food is always harmful. It degenerates the kidneys, retards the formation of red corpuscles, and destroys the vitamins in the fruits.

Avocados

California avocados are available all year, with a slight peak in December through June. Florida avocados are available July through March. California avocados have a thinner skin and are more buttery and less watery than Florida varieties; they also have a better flavor and contain perhaps twice as much protein.

It is very important to eat the avocado when just ripe, when it has a buttery consistency and a mild flavor. When unripe, it is hard and practically inedible. It is best to buy your avocados hard and firm, so that ripening conditions can be controlled. Ripen at room temperature in a tray on your kitchen counter —this usually takes two or three days. When there is a slight yielding to gentle pressure on the skin, it is time to enjoy them. Dark avocados are somewhat soft to firm when ripe—if very soft, with black spots, they are usually rotted. Green avocados are softer when ripe (while still retaining their characteristic green color).

Select avocados of uniform color and free of cracks. Irregular brown markings have no effect on the inside of the fruit. Don't buy avocados with dark, sunken spots in irregular patches or cracked surfaces,

which indicate decay. By law, avocados cannot be picked before a date that is supposed to insure that the fruit will be mature before being harvested, so commercially grown avocados should always ripen properly. With careful handling, they do ripen properly most of the time, although sometimes you get a "bad batch" which darkens and rots.

Fortunately, the thick, tough skin of the avocado affords some protection against chemical sprays, though it is true that the roots of the tree itself are bound to absorb chemicals from the fertilizers and sprays. The rule for avocados is the same as previously indicated: Use organically grown fruit whenever you can get it—otherwise, do the best you can. But, with avocados, at least the flesh has not been exposed to poisonous sprays.

An interesting fact about the avocado: An acre of land will yield a larger amount of food when planted to avocados than it will when planted to any other tree crop known at present. (Dr. William L. Esser)

Dr. Esser maintains that the avocado is one of the most valuable foods which nature has given to man and is of special value to vegetarians. It is higher in protein and fat than any other fruit (except nuts). Of course, the fat is more digestible than animal fat. In Guatemala, the avocado is used in place of meat. (Avocados, though botanical, members of the fruit family, are also classified as fat/protein food.)

The principal difference between avocados and nuts is that avocados are about 75% water, and nuts contain only about three to five percent water. Further, all nuts except the almond (and the coconut and chestnut, which are not classified as true nuts) are acid in metabolic reaction, while avocados are alkaline. The diet should predominate in alkaline foods, such as fresh fruits and vegetables—perhaps 80% should be alkaline in reaction. However, the high fat content of the avocado should be a signal that it should not be used excessively. One-half of a medium-sized avocado at a sitting should be adequate, and they should not be used every day.

Bananas

Bananas are available all through the year. It is best to buy them green for ripening at home, where ripening conditions can be controlled. Bananas are usually "gassed" to facilitate ripening. Sometimes it is possible to buy "ungassed" bananas, but it is somewhat doubtful whether they truly have escaped the gassing process. They may have been acquired before having been subjected to "ripening chambers" in this country, but is my understanding that some of the fruit has already been gassed on the vessels carrying them from the tropics.

Bananas, at least, have a good protective skin, so the flesh isn't exposed to chemical sprays. I usually buy the greenest bananas I can find. I put them in a brown paper bag overnight, and expose them to air during the day (on my kitchen counter).

Select bananas free from surface bruises, with skin intact at both tips. Ripen at room temperature. When the skin is bright yellow speckled with brown, the starch will be changed to fruit sugar, and the fruit will be tender, sweet, and easy to digest. Fruit that ripens with brown speckles may not have been gassed, as I have been told that gassed bananas ripen with dark streaks and blotches instead of the brown speckles. I have found that speckled fruit uniformly delightful in taste, so I am inclined to give some credence to this speculation.

Don't buy bananas which are bruised, discolored, or dull and grayish, which means they have been held in cold storage and will never ripen properly. Sometimes bananas that are ripe and ready for eating are sold at reduced prices. We usually are glad to get them, though they must be used that day or the next day. Overripe parts can be cut away; the rest is fine.

We have two stools of banana trees in our yard (in Florida) and harvest small, flavorful bananas some years (when the previous winter's frost has not been too severe).

Blackberries, Blueberries, Raspberries, Mulberries, Loganberries, and other small berries

Peak season June through August. Although they differ in shape or color, these small berries, which often grow wild, are similar in general structure and buying considerations. Freshness and ripeness are prime concerns. Good bright color for the species, plumpness and tenderness, indicate ripeness. Usually, however, the problem is over-ripeness. The berries are also easily mashed. The small containers of berries are expensive and may contain a large percentage of moldy, spoiled berries. If the container is stained or wet, don't buy it. Don't wash the berries until you are ready to use them. They are very fragile and perishable and won't keep long. Ripe raspberries drop their cores, leaving little hollow cups. Blackberries don't. When blackberries are red, they are not ripe.

Cactus Fruit (Prickly Pear)

Fruit season August-September. Available occasionally. Cactus fruit grows on a very large type of cactus. The fruit is smaller than an average sized pear, purplish in color, and covered with small thorns (or spines). The edible, juicy, pulpy fruit is red, and somewhat enjoyable, but not necessarily worth the trouble of dealing with its thorny coat, which makes it difficult to assess its ripeness. I have not seen the thornless variety developed by Luther Burbank. The taste of cactus fruit is slightly tart and it has many fine seeds. It is necessary to cut out the areas with the little spines in order to handle the fruit.

Cherimoyas

This is practically unknown in most U. S. markets, because it is very delicate and does not withstand shipping. I am including it although I have not yet been successful in ever tasting this fruit. Dr. Esser says it surpasses all other fruits, and I encourage you to try it if you ever find it available to you. It is prolific in tropical countries, haying originated in Ecuador and Peru, and spreading to Mexico, the West Indies, Africa, India and Polynesia. Weak attempts to cultivate it in some parts of the U.S. have not been particularly successful. This fruit attains its highest perfection on the slopes of the Andes.

The shape of the cherimoya is irregular, sometimes round, sometimes cone-shaped. The skin is delicate, dark green when ripe. The edible part is whitish yellow, juicy and filled with many brown seeds. The taste reminds one of the pineapple, though it is perhaps more delicious and delightfully fragrant.

Cherries

The peak season for this fruit is June and July. Eating cherries appear in May, but one should wait until June for the dark, sweet, flavorful ones, which will also be priced lower by then. Small size cherries are not a good buy; the pit is the same size as in the larger cherries. The most important sign of maturity and sweetness in cherries is a very dark color. They should be bright, glossy and plump and the stems should not look dark and withered. Cherries decay rather quickly, and should be used soon after buying. If you see soft leaking spots or surface mold, don't buy them. Tart cherries are not suitable for eating. Remember that cherries are heavily sprayed and have no tough, peelable skin for protection. Wash them thoroughly and eat sparingly—not every day during the season.

Citrus Fruits

Oranges

Peak season, December through June. Color of the skin is no indication of quality or ripeness. The skin of the first crops of mature oranges in November is green or greenish, but mature oranges are ready for harvest and eating, even when the skin is green. They are, however, not as sweet as oranges harvested a month or so later on. California growers "orange" their green fruit by gassing; Florida shippers put the oranges through a colored wax bath (a "non-toxic" food coloring and wax), because they believe the added color will make the fruit more saleable and the wax will improve the keeping quality. Some fully

ripened fruit even turns green again late in the season. Lucky people who live near orange groves can get uncolored, freshly picked oranges, and, possibly, even organically grown oranges. Organically grown oranges are usually the sweetest.

Organically grown oranges are available if you want to go to the trouble and expense of having them shipped in. See addresses in an earlier part of this lesson.

Firm, heavy oranges are full of juice. Avoid lightweight fruit and very rough surface, which usually signifies a thick skin and a smaller orange. There are many varieties of oranges. In Florida, we get navels, temples, tangelos, valencias, tangerines, and pineapple oranges. There are several varieties of tangerine oranges, including the mandarin, the honey murcott and the satsuma. Tangerines are best when they are a little loose in their skins, but not pulpy around the ends. Tangerines peel very easily, the skin being very loosely connected. Temple and tangelo oranges are also rather easy to peel.

Florida oranges disappear from the market about May, but oranges from California are available all through the year. Several varieties of California oranges are usually available, including navels and valencias. Oranges grown in the United States outside of California, Florida and a small strip of southwest Arizona, must either be very hard varieties, or must have artificial winter protection or heating. Some oranges are thus successfully cultivated in southern Texas, the northern interior of California, and elsewhere. I have received brochures offering shipments of Texas oranges. Jaffa oranges from Israel are sometimes available.

Grapefruit

Peak season, November through April. Grapefruit are really available throughout the year, and are ripe and of consistently good quality, though the price will be higher when they are out of peak season. This is one fruit in which color and blemishes have little relationship to quality, although it is said that rusty looking marks on the skin are an indication of sweetness.

Grapefruit should be firm, thin-skinned and heavy for their size. The smoother the skin, the thinner. A coarse surface and pointed end are signs of thick-skinned, less juicy fruit, but it may still taste good. Wrinkled and rough skin will indicate tough, dry fruit. Skin defects are of no importance, except for large, soft, wet spots. If discolored at the stem end, or if the skin breaks easily, decay has begun. Popular varieties are Marsh, Ruby Red and Duncan. Although the Duncan has many seeds, it is the best in delicious flavor. Indian River (Florida) fruit is considered superior in flavor and quality.

Kumquats

Available in the south in the fall and winter. Some are suitable for eating, some only for making preserves. Some are ovoid, some spherical. A spherical variety native to Florida is very sweet and one can even eat he skin, which is thin, sweet and spongy.

Carambolas

The major crop becomes available in the spring and summer; they are sometimes available in November-December. Available mostly in southern markets. They are usually lemon-colored (unripe) and the clear, watery pulp is too tart and astringent, and they seldom ripen satisfactorily. When orange-colored, they are ripe and pleasantly acid-sweet, with an agreeable flavor. If picked at full maturity, they are good eating.

This fruit is somewhat of a novelty to behold. It has a waxlike surface with deeply ridged sides, and when hanging on the tree, carambolas resemble lanterns. A cross-section or slice of the fruit is star-shaped, since the fruit has an oval, five-angled shape. Carambolas are not citrus fruit, but are acid fruits resembling the citrus in appearance and taste of the flesh.

Lemons

Available throughout the year. Peak season May through July. The habitual use of this strongly acid fruit is not advisable. It can not only cause erosion of the dental enamel, but it tends to retard digestion. Use of lemons in salad dressing is less objectionable than vinegar, but it is better not to use salad dressing at all. Recipes for salad dressings made without vinegar or lemon will be given in Lesson 26. Lemons with a rich, yellow color, reasonably smooth skin and heavy for their size are the best.

Limes

Available year-round, peak season June-July. Comments about lemons also apply to limes.

Cranberries

Peak season, October through December. Cranberries are not recommended for use as food because they contain considerable quantities of malic and benzoic acids. Benzoic acid is a white, crystalline acid used in perfumes, dentrifices and germicides, and to season tobacco. Cranberries cannot be enjoyably used in their natural, raw state unless considerable amounts of sweetening are used, or unless combined with other sweeter fruits, such as oranges. Cranberries are classified as acid fruit, but are best excluded from the diet.

Currants

Not usually available, except in the dried state, or in jellies and jams. Currants grow wild and in gardens in temperate climates. The wild species are small and very sour, but the larger garden varieties have an agreeable acid flavor. The currant resembles a tiny grape, or when dried, a small raisin. There are three varieties, red, white and black. The red variety is richest in mineral content.

Dried Fruits

Available all year. Dried fruits are rich sources of natural sugar, plus all the vitamins and minerals in the fresh fruit. The drying process preserves the fruit by removing about 50% of its water. Almost all of the nutrients remain. Dried fruit is particularly high in iron.

Select only fruit which has been sun-dried, and which does not contain sulfur dioxide or other additives. Fruit which has been dried by artificial dehydration (heat evaporation) is usually dipped into a sulfur dioxide bath to keep it from darkening. Golden raisins, and any dried fruit that is light in color, have been treated with sulfur dioxide. Almost all dried fruit is fumigated during storage or shipping. Dates are usually, pasteurized to prevent molding. Preservatives are not necessary in these products, but some processors add sorbic acid as a preservative, and some add corn syrup or honey to keep them from drying out. Don't buy any dried fruit that contains sorbic acid, sweeteners, or any additives.

Dates

Dates usually only reach us in the dried state. The Calavo and Dromedary brands, available in supermarkets, don't have any additives. The varieties available in health food stores usually don't have any chemicals or sulfur dioxide, but they are sometimes honey-dipped. Some of the popular varieties are Deglet Noor, Medjool, Khadrawi, Barhi, Halawi, Zahidi and Bread dates. Some of the varieties are very large and of superb flavor, but they are seldom available, and quite expensive. I usually buy my organically grown dates from Jaffe Brothers, and "fill in" by purchasing a few at the health food store.

Figs

The two most popular domestic varieties are Calimyrna, the native California variety, which is light in

color and sometimes large and succulent; and Black Mission figs, which are purplish black, with pinkish meat, and are usually small. Calamata strings, imported from Greece, are uncured. Smyrna and Kadota figs are sometimes available. We have a Kadota fig tree on our property, and get a large crop of figs of large size and excellent flavor. We eat figs every day when they are ripening, give large quantities away to friends and neighbors, and freeze the rest, without heating or sweetening. We eat them just barely thawed, and they arc not as good as freshly picked raw figs, but they are a welcome addition to our fruit meals in the winter. We buy organically grown dried Calimyrna figs from Jaffe Brothers, and sometimes buy dried figs from the health food store.

Raisins

Sun Maid Thompson seedless raisins (except the "golden"), and Sun Maid muscats, sultanas and currants, are sun-dried without the use of chemicals. S&W raisins (the dark kinds) are also free of sulfur dioxide. Monukka raisins are large choice raisins available in health food stores. I buy my raisins from Jaffe or Covalda or the health food store.

Apricots

Sun-dried, unsulfured apricots are usually very tough and dry and must be soaked overnight to make them palatable. I am very fond of soaked, dried apricots, because they have an excellent flavor and are less sweet than most dried fruit. If dried apricots have an even color and bright, attractive appearance, they have been sulfured.

Prunes

No unsulfured prunes are available in supermarkets, but some are available from Jaffe, Covalda and health food stores. Prunes are high in oxalic acid and their usage should be limited.

Dried Dark Cherries, Dried Bananas, Dried Apples, Dried Peaches and Dried Pears are also available at times. Select only unsulfured fruit.

Dried Litchi Fruit and Dried Carob Pods are also sometimes available. The dried litchi tastes somewhat like the raisin. The shell surrounding it looks like a small brown ball (the shell is red in the fresh state), and the fruit surrounds a large, hard seed. Dried carob pods are hard, stringy, and chewy, but if they are not too dry they have an agreeable taste. The color is dark brown and the dry fruit encloses a number of small, hard, shiny seeds. Carob powder (available at health food stores) is often used as a replacement when a flavor similar to chocolate is desired.

Fresh Foods, continued...

Figs (Fresh)

Peak season, July and August (but rarely available). Figs should be plump and fairly soft, but not mushy, and with no breaks in the skin. The softer they are without being rotten or fermented, the sweeter they will be. If they are fermented, they will smell vinegary. Buy for immediate eating—they are extremely perishable. Figs can be green, yellow, pink, violet, brown or black. In chemical composition, the fig closely resembles that of human milk, especially in regard to the proportion of mineral salts. (See article on figs in this lesson.)

I have found fresh figs for sale about five or six times in my entire life, where I have lived in Indiana and Florida. They may be available more often in other areas of the country. Now that we have our own Kadota fig tree, we enjoy this delicacy regularly; we have one major crop in the spring, and a minor crop in the fall-winter season. We harvest enough to share with friends and neighbors, and put some in our freezer to enjoy during the winter. Our Kadota figs are green until ripe, when they swell, turn yellow and

soften. (See "Dried Fruits" for additional information about figs.)

Gooseberries

Seldom available. The wild varieties are covered with spines, but the large cultivated varieties are completely smooth. American varieties are mostly inferior in size and quality to European species, some of which are almost as large as hen's eggs. Really good ripe gooseberries have a delightful, acid-sweet taste, but I have never found these good gooseberries.

Grapes

Peak season, July through November. The most common varieties are Thompson seedless (early green), Tokay and Cardinal (early bright red), and Emperor (late, deep red). Other varieties are Ribier (dark blue), Red Seedless, Concord, Catawba, Salem, Delaware, Jessica, Muscadine, Malaga, Muscat and Sultana. The first grapes will not be as sweet as those available later. Green grapes are sweetest when the color has a yellowish cast. Red grapes are best when deep red. All grapes should be well-colored, firm and plump, and still attached to the stem. Look for the powdery "bloom." Avoid bunches with small undeveloped berries (they're sour). When the best grapes are available, around early fall, we find Thompson and Red Seedless to be the sweetest and most flavorful, with Ribiers running a close second. Later in the season we have to settle for Emperors, which are usually fairly good. We don't care much for Tokays, but use them occasionally, because they are available late in the season when the other varieties are gone.

Grapes are nutritionally among the best of fruits, but it is too bad that they are so heavily sprayed that they should be eaten sparingly, after thorough washing. You might want to go to the trouble of peeling them, to at least get rid of the worst of the chemicals.

Kiwifruit

Available through the year. The New Zealand kiwifruit is about the size of a hen's egg. It has a thin brown furry skin. Squeeze very gently to check ripeness—it should give a little. The kiwifruit is growing in popularity. If you have never tasted a kiwi, you are in for a treat. When cut in half or sliced, it has a surprising, unusual and attractive appearance—emerald green flesh, with tiny seeds clustered around a light, creamy center. It has a wonderful, delicate, strawberry-like texture and a fresh, tangy flavor all its own. This fruit was formerly known as Chinese Gooseberry. Although most of the kiwis are imported from New Zealand, California is also growing the fruit, with about a thousand acres now in production. The November 1, 1981 Florida Market Bulletin contains a picture of a pair of kiwifruit growing in Florida—it didn't say just where. The article says that, as far as the editor could tell, these were the first pair of kiwifruit to be documented growing in Florida.

Litchi Fruit (Fresh)

Fruit season mid-June—mid-July, seldom available. The fresh litchi (also spelled lichee, lychee, leechee, lichi, laiche) is a grape-like fruit which hangs on the tree in beautiful red clusters, and is luscious when fully ripe. Some of the trees are grown in yards in southern and central Florida. The skin is a thin, leathery shell (hence the name litchi nut, which is often used), purplish-red to bright red when ripe. The flesh is white, similar to the grape, with a sweet taste, jelly-like consistency, and excellent flavor and aroma, surrounding a large hard seed.

Loquats

Peak season January-April, but seldom available in markets. They are grown in yards in southern and central Florida. We have one in our yard which yields a large crop of excellent fruit. The loquat is sometimes called the Japanese Plum, looks more like a small apricot, and tastes slightly acid, or subacid

when totally ripe. Loquats are one to three inches in length, have a pale yellow to orange color and somewhat downy skin. The flesh is also yellow to deep orange in color, and the fruit generally contains three or four seeds. The loquat is very juicy and has an excellent flavor when fully ripe.

Mangos

Peak season, May through August. Mangos can be bought green and ripened at room temperature. It is best to select mangos which are starting to show some signs of ripening, rather than totally hard and green, or totally ripe. Completing the ripening at home under controlled conditions will usually result in better-tasting fruit. The color of the flesh varies from light lemon to deep apricot. In the best varieties, the flesh is smooth and juicy, with an excellent flavor. Such a properly ripened mango, eaten at the peak of its rich, pungent flavor, is delectable. The flavor is somewhat reminiscent of peaches, but much more exotic.

The Haden is a superior variety. The Kent is notable for its smooth texture. In some of the less desirable varieties, the flesh is full of fibers and the flavor unpleasant. The excellent Haden fruit is plump and oval-shaped and often has a rosy blush. When ready to eat, it is yellow and orange, only slightly firm, yielding to gentle pressure. The Haden has a fair amount of fiber, but excellent flavor. The Carrie is a large, green variety of good flavor and texture, and is fiber-free. It turns a paler green and develops dark speckles as it ripens. When ripe enough for full flavor and enjoyment, it is slightly firm, yielding to pressure. Mangos have a tough peel which is a good protective coat against sprays.

Melons

Cantaloupe

Peak season, June through August. Medium to large cantaloupes are usually sweeter and tastier than small ones. Heavy fruit will be juicier, but not necessarily sweeter. Pleasant aroma is the key to ripeness and superior flavor. The melons should yield to pressure, especially at the blossom end. The network of veins in the rind should be thick, coarse and stand out in bold relief, and the rind color should be a yellowish shade, not green. Avoid cantaloupes with smooth spots. If a cantaloupe was not mature when picked, some of the vine stem will adhere to the fruit. In order to be sweet, the mature cantaloupe must be free of the stem, with a smooth, shallow depression where the stem grew. If the melon is mature when picked, it will reach excellent eating quality if ripened at room temperature for a few days.

Don't buy overripe melons, indicated by widespread softening. They will be tasteless and watery. Small bruises are not significant, but large bruises will affect eating quality.

Persian Melons

Peak season, August and September. These melons are a variety of Musk Melon, and look like oversized cantaloupes, but are somewhat rounder with a finer netting. They can be grouped with cantaloupes for selection and use information. As the Persian melon ripens, the dark green rind under the netting turns lighter green and the rind gives under light pressure. Avoid those with dark or greenish black netting. Persians have a dark orange flesh.

Casabas

Peak season, July to November. They are best in September and October. Casabas are not netted like the cantaloupes, nor smooth like the honey dews. Instead, they are profusely marked with longitudinal corrugations. Skin color varies with the variety. Golden Beauty casabas are pointed at the stem end, with green skin that turns to yellow at maturity. They will have a yellow-gold color and a slight springiness at the blossom end when fully ripe. The ripe flesh of a casaba can be either white, yellow or orange in color. Although sweet flavored, the flesh is not as sweet as a honey dew, nor does it have the musky

aroma and flavor of the cantaloupe. Casabas do not "slip" from the vine at maturity; rather they are harvested by cutting the stem when the melons are reasonably mature and held in storage until the blossom end becomes soft. The flesh of an unripe casaba tastes like a cucumber.

Crenshaws

Peak season, August and September, although available July through October. The crenshaw (not cranshaw) is a variety of the casaba. It is a slightly wrinkled, dark green fruit that turns pale yellow-tan at maturity. It has shallow furrows, but the rind is much smoother than that of the Golden Beauty casaba. When fully ripe, it is golden yellow, yields to slight pressure, and has a strong, sweet aroma. The flesh of the ripe crenshaw is a rich orange color, and it has a juicy, rich, rather spicy taste. The crenshaw is large, up to nine pounds, with a rounded blossom end and pointed stem end.

Honey Dews

Peak season, July through September. The best honey dews start coming in July. Before then, the tendency is to pick them too soon and they never progress to the lovely, delicate sweet flavor that is characteristic of a good honey dew. This melon is quite large and may be oval to round in shape. The rind is smooth and firm. When at the peak of flavor, sweetness and ripeness, honey dews are creamy white with yellow areas—with no green at all—and have a velvety surface and a sweet aroma. It is best to buy honey dews fully ripe, rather than to depend on ripening them at home. If there is "give" at the blossom end, and the color is right, take it home and use it in a day or two. Patches of slightly raised netting mean exceptional sweetness. If honey dews are stark-white or greenish, or if they feel hard, or look shiny and smooth, they were picked too soon. The flesh should be light green and very juicy, and sweet! A good honey dew is the queen of melons. Small damaged areas will not lead to further deterioration, if you plan to use the melon immediately.

The smaller round Honeyball melon has much the same characteristics as the honey dew, except for its size.

Watermelon

Peak season, May through August. Look for a slightly dull green appearance (not shiny and not really dull), with a velvety bloom on the rind. Dark green or shiny watermelons are unripe. The underbelly, where it has rested on the ground, should be yellowish or amber, not stark white or greenish. The melon should be symmetrical, with full, round ends. These signs are not totally reliable, but if used as a criterion, will usually result in the selection of a good melon. Some people use the thump test—a flat, dead sound when thumped is said to indicate ripeness. If the melon is cut, it is easier to choose—select firm, juicy flesh, with a good red color and no white streaks or mealy or softening areas; seeds should be dark brown or black.

Miscellaneous Melons

There are a number of other exotic varieties of melons, which are available from time to time. If in doubt, or inexperienced with these expensive melons, look for one that has been cut open.

Nectarines

Peak season, July and August. The nectarine tastes like a peach, but has the smooth, glossy skin of a plum. The color ranges from a red blush to completely red. If the color is rich and bright, it will be sweet. In recent years, I have found most nectarines to be dull in color, very hard, and impossible to ripen to an acceptable state. These nectarines have probably been picked too soon. If the color is right, but the fruit is too firm, it should ripen properly. The flesh of the ripe nectarine is yellow, like the yellow-fleshed peach. Don't buy dull-colored or shriveled fruit, or fruit with evidence of soft spots or

mold. I prefer peaches, but good quality, tasty nectarines, without the fuzzy skin of the peach, are welcome.

Olives

Since olives are not available raw, all of them having been either pickled or salted, and the bitterness having been removed by potash or lye, they are not recommended for use as food. Dr. Esser says it would be a fine food in its natural state, fully ripened on the tree and sun-dried, so that some of the bitterness would be naturally removed.

Papayas

Some of this fruit is available all year. Small Hawaian papayas are available most of the time. Larger Florida papayas are best during the months of July through October (or later), depending on the weather. Papayas are also grown in Texas, and some in California. The fruit on our papaya tree usually starts ripening in the late fall, and then it is a race between the ripening and the frost (which can kill all the fruit). Size and shape of Florida papayas vary; they may weigh from one-half pound to ten pounds. The flesh may be yellow to orange-red. Select fruit that has some golden yellow or orange streaks, which is a sign that it has not been picked too green and will be apt to ripen properly. If you select papayas with at least 35% of the skin streaked yellow, they will ripen completely in two to three days at room temperature. When a papaya is totally yellow to orange and yields to gentle pressure, it is ready for eating. Don't buy mushy papayas, or fruit with dark patches, which signify age and decay. If not picked too soon and if ripened properly, the flavor is sweet and luscious. Otherwise, it may be bland and tasteless.

Pawpaws

Not usually available in markets. The trees usually grow in thickets along river banks in central U.S. valleys. We picked some in Indiana. It is an odd looking fruit, cylindrical with obtuse ends, from three to five inches long and from one and a half to two inches thick. The skin is brown, with dark patches when ripe. The flesh is creamy yellow, very soft, somewhat gritty and very sweet; it contains two to eight large glossy black seeds. It is somewhat similar to the cherimoya.

Peaches

Peak season, June through September. Select peaches with areas of yellow and no green at the stem, and that are fragrant, plump and fairly firm or beginning to soften. The best place and time to buy excellent, flavorful peaches is in Georgia in the summer. Don't buy hard, green peaches which were picked too soon and will never ripen properly. Ripe peaches turn reddish instead of yellow and feel soft to the gentle touch. The flesh is usually yellow, though there are some white-fleshed peaches. If you buy peaches that are ripe or almost ripe, you may find that they have deteriorated by the time you get them home. Don't buy bruised peaches. Unless used immediately, they will soon be garbage. If possible, buy local tree-ripened peaches that are slightly underripe. If you can get them organically grown, good for you! Peaches are heavily sprayed, but they can be peeled, which helps somewhat. European peaches are said to be superior to American varieties. California produces more peaches than any other of the United States.

Our peach tree produces large quantities of delicious white-fleshed fruit.

Pears

Peak season, September through November. Cold storage Anjou, Bosc and Cornice pears are available as late as May. The more fragile Bartlett pears are available through November. Select firm unblemished pears. If they are too hard, they may not ripen, so there should be just a little "give" to slight pressure.

Avoid wilted, shriveled pears. Spots on the sides or blossom ends indicate an overripe or mealy pear. A ripe, crisp pear is flavorful eating, but you probably will not enjoy a hard or mealy pear. Some pears are somewhat gritty. This grittiness is not consistent by variety and may sometimes be found, in different varieties. The tiny seckel pears available in the fall are an excellent flavor treat and are never gritty. The Bartlett—a medium early pear—is large, green to yellow, and is the most popular commercial pear, though its flavor is only medium, and it becomes quite mealy if not used at its peak of ripeness. It turns yellow when ripe. The Anjou is medium to large, has smooth green skin with a faint blush. The flesh is white and sweet, with a fine flavor. It is one of the later pears. The Bosc has a long, tapering neck and a russet skin. It is juicy, with a rich aroma and fine flavor. It is a late pear. The Cornice is a choice, flavorful pear of high quality. It is available in midseason, and is large, roundish, green-yellow to yellow, with a delicate blush. Pears are not usually waxed. Scrub well before eating.

Persimmons

The small native persimmon is seldom available in markets, but the trees grow wild, and if you can spot these trees, the persimmons are free for the taking in October, November and December. They are hardy, and grow in tropical or temperate climates. The fruit averages about one inch in diameter. The peak season for Japanese persimmons is October-November. They are grown in our southern states, appear in the markets in the fall, and are available for only a short time—a month or two. They are tomato- or conic-shaped, up to four inches in diameter and three inches high (sometimes wider than they are high) and orange-colored. A thin, membranous skin covers the orange-colored flesh. Persimmons are astringent when green, but become sweet when fully ripe. The flesh, when ripe, is very soft (sometimes almost liquid) and of very sweet and pleasant flavor. Japanese persimmons may have as many as eight elliptic, flattened, dark seeds, or they may be seedless. Some varieties have dark flesh, which is crisp and meaty and never astringent. These are edible before maturity. Some of the entirely dark-fleshed varieties improve as they soften, like Hyakume and Yeddo-ichi; others are best when still hard, like Zengi. But the more common, light-fleshed Japanese persimmons, or those with mixed light and dark flesh, should not be eaten until they reach the custard-like consistency of full ripeness. The "puckery" substance in the immature persimmons is tannin. As the fruit ripens, the tannin forms into crystals which do not dissolve in the mouth, and the astringency disappears. When they are thoroughly ripe, persimmons are very soft and difficult to handle. They should be picked when still a little firm, and the ripening finished at room temperature. Most of the Japanese persimmons available in the markets are picked too soon, and though they will still soften and ripen at room temperature, they never attain the optimal flavor of the persimmon which is picked at the proper time, just before they are ripe.

The small native American persimmons may also be harvested just before they are ripe, or they may be left hanging on the tree into the winter months. Even if frozen on the tree, the fruit is of excellent flavor when thawed. If the fruit is left to ripen and drop, it is at its peak, if it can be rescued quickly from the ground.

Pineapples

Peak season for this fruit is March through June. Good pineapples may also be available at other times during the year. Unless pineapples are mature when picked, they will not ripen properly. They may become soft, but never sweet. They may simply rot. Select pineapples that have begun to display some gold, orange-yellow or reddish-brown coloring. Some varieties are ripe when still green, but the best and most flavorful pineapples display the change in color from the base up, as they ripen. If the yellow color has spread to 15 or 20% of the fruit, then it's ripe. A ripe pineapple should have a fragrant (but not fermented) odor and a slight separation of the eyes when ready to be eaten. The spikes should pull out easily and the fruit should be plump and heavy for its size. Soft spots or an unpleasant hint of fermentation in the odor are signs of overripe fruit. Pineapples with pointed or sunken eyes, dull yellow-green color and a dried-out appearance are immature. Fruit allowed to ripen completely before picking is a flavor treat most people in temperate climates never experience. A considerable amount of pineapples

used to be produced in Florida, as much as half a million crates, but this Florida commercial pineapple has disappeared. Most of the fresh fruit now comes from Puerto Rico, Honduras and—especially—from Hawaii. I have found Dole pineapples, air-expressed from Hawaii, to have the best flavor. They are the most expensive, but are almost always deliciously sweet and juicy. The Dole Company maintains that all their pineapples are plant ripened and that the Dole pineapple is ripe and ready to eat—regardless of shell color. I still try to pick one which is turning orange-yellow—I believe they taste best; and I always pick one that has the characteristic pleasant fragrance.

Plantains

Available intermittently. These look like oversized bananas, but they must be cooked before they can be eaten. Green and yellow plantains are very starchy. They must turn black before they are mature enough to be sweet, and they must still be cooked.

Plums

Peak season, July through August. Varieties of plums differ in flavor and appearance. The skins may be green to purple-red and the flesh yellow to red. There are many varieties of plums, and sometimes as many as six to eight varieties are available at the same time. During the course of the season, as many as thirty different varieties of plums may be featured in markets. Some are juicy and hard; others are soft and sweet; still others have a rich flavor. Select unblemished plums that have good color for the particular variety, a slight glow to the skin, and that yield to gentle pressure. Most plums are picked prematurely and will never reach their optimal delicious flavor. Avoid immature fruit, which is hard and poorly colored. Even if it softens, it will be very tart and lack flavor. Of course, don't buy overripe fruit which is soft, leaking and decayed. Plums are commonly waxed to give them a glossy look. It is best to peel waxed fruits. Plums should be eaten in limited amounts, because of their high content of oxalic acid.

Pomegranates

Peak season is in the fall. The fruit season is all year in south Florida. Fruit is picked after it has changed color to yellow and/or dark red, and is held in cold storage to ripen. If permitted to ripen on the tree, it may split. The fruit is round and flattened, irregularly six-sided, about the size of an orange. The tough, leathery skin encloses numerous small, red, juicy flesh bodies which contain small seeds. The flesh becomes quite sweet when thoroughly ripe. Some people don't bother with the pomegranate, feeling it is too tedious and difficult to eat. A simple way to eat the pomegranate is to carefully squeeze or knead it until soft, without rupturing the skin, but liquefying the red, sweet flesh. Carefully puncture the skin to avoid squirting and suck out the delightful sweet-acid juice. When ripe, it is easy to rupture the flesh bodies with slight pressure of the thumb.

Rhubarb

Peak season, March through June. Rhubarb is not recommended for use as food, because it cannot be eaten raw; even cooked, it requires much sweetening, in addition, it is a poor food because it is quite high in oxalic acid. The plant bears red petioles (fruitstalks) with large leaves, and bears no fruit in the usual sense. The fruitstalks are cooked into preserves or sauce or pie filling, and, therefore, most people think of rhubarb as a fruit, although, botanically, it is a vegetable. Diced rhubarb is usually combined with strawberries or apples for pie filling. The leaves are not used at all, as they contain large amounts of oxalic acid salts which may be fatally poisonous. As indicated above, the fruitstalks also contain enough oxalic acid to be rejected as food.

Strawberries

Peak season is April through June. In the far south, strawberry plants may be set out either in the fall or early spring, but the fall plantings yield a small harvest. Strawberries are usually expensive and of poor quality when out of season. Medium to small berries are sweeter than large ones, as a rule. Select dry berries with stems attached, showing full, red color, bright luster and firm flesh. They should be all red, with no whiteness around the tip, and with a bright green cap. If most of the berries in a basket are of reasonable quality, it is probably the best available. Be sure to sort out any decaying or green berries as soon as possible. Don't wash them until you use them.

4. Storage Of Foods

Foods that are refrigerated should be handled with special care. Bacteria in such foods can multiply rapidly under adverse conditions. Most of your fresh produce should be kept refrigerated (unless it needs ripening at room temperature).

Dry mixes—like Vegebase (dried vegetables used as seasoning)—which can be safely stored in a cabinet, should not be kept in cabinets above the stove.

Don't taste any food that doesn't seem right. You don't even have to swallow the food to be poisoned by the toxins produced by certain types of bacteria. In some cases, even the food's taste is no indication of safety. *When in doubt, throw it out*.

Don't expect your refrigerator to do things it was never meant to do. You may have thought that refrigeration would destroy most harmful bacteria in food. Refrigeration *will* retard the growth of the bacteria found in food, and inhibit their multiplication and ability to spread or produce a poison, but bacteria or poison present in food may still be there even after refrigeration.

The same is true for freezing, probably even to a greater extent. Freezing does not kill bacteria in food; it simply stops their spreading. The bacteria will become active and again continue to spread as the food is thawed. Food should be used as soon as possible after thawing.

Cooked foods deteriorate rapidly, even in the refrigerator. It is important to have accurate thermometers in your refrigerator and freezer. The refrigerator should be set at about 42 degrees, the freezer at zero. The motor and refrigerating unit should be kept free of lint and dirt. These substances cut off the air supply, overwork your refrigerator, and reduce efficiency.

The gaskets (the rubber insulation) around the doors should be flexible. Stiff, cracked and damaged insulation allows air seepage. Make a test with a dollar bill. Hold it halfway in the door, shut the door, and see if you can easily pull the bill out. If so, the gasket is allowing air to escape and should be replaced.

Check your freezer. Frost buildup of one-fourth inch or more actually serves as insulation against keeping foods well frozen. All items to be frozen should be tightly covered or wrapped in a moisture-resistant material.

Where you place the food is important. Some foods should be kept colder than others, and food placement affects air circulation and efficiency of the refrigerator. Keep in full view, so that you won't overlook them, those foods which should be used quickly.

It is best not to stack foods on top of one another if you can avoid it, and refrigerator shelves should not be covered with material which reduces or prevents air circulation.

Produce should be kept in the lower compartments to prevent crystalization. Food should be arranged so that the oldest is used first. This is important for safety, flavor, texture and nutrition.

Of course, the refrigerator should be kept clean and free of odors. An open box of baking soda, changed every few months, will absorb odor.

A Hygienist soon learns that it helps to have two large refrigerators. We keep the extra one in our garage. While the ideal would be to pick or obtain food for each day as needed, most of us cannot readily attain this ideal.

In order to buy and store organically grown apples by the bushel; fifteen pounds of organic potatoes and carrots at a time; a year's supply of nuts in the harvest season; a good supply of citrus fruit when the citrus season is waning, etc., these precious foodstuffs must have the best of storage facilities. This will not only minimize food losses, but will preserve as much as possible the food's value and flavor. As well as being refrigerated, they must be watched and culled, being sure to use them before they have a chance to degenerate. All of these foods store quite well, with an occasional apple or orange starting to break down prematurely. By and large, we have learned to minimize waste, and we enjoy a maximum supply of excellent food the year round, much of it organically grown.

Dr. Esser recommends that, wherever possible, the best idea is to build a large walk-in refrigeration unit in a shady spot or a place where the storage room can be set into a hill, or underground with steps leading down to the door. He gives specifications for building such a unit in his book, *Dictionary of Man's Foods*. He suggests, as one alternative, a storage room in the cellar of your house, and also gives specifications for this type of storage room. He suggests other alternatives, among which is the method we use—an extra refrigerator or two in a garage or basement.

Fresh fruits and vegetables call for careful handling. Most of them keep at maximum freshness in a refrigerator where it is cold and humid, and the sooner they are refrigerated after purchase, the longer they will stay fresh.

In discussing the storage of fresh fruits and vegetables, reference will be made to using pliofilm (plastic) bags for storage. Some Hygienists advise against the use of plastic bags or plastic anything. I don't use plastic dishes or plastic water jugs, but I still use plastic bags and plastic wrap. It is my opinion (or perhaps it is wishful thinking) that no significant transfer from plastic to food occurs, except in the presence of heat or acid. I use covered glass jars or containers whenever possible. If protecting a cut watermelon with pliofilm, people who feel very strongly against its use may thinly slice away the surface that has been in contact with the pliofilm.

The plastic storage bags available in supermarkets have proved indispensable in my kitchen. It is a good idea to double these bags, squeeze the air from the bags and close them tightly with wire "twists."

Perhaps you will like Dr. Vetrano's suggestion: Put a fine mist of water on your vegetables, put them in a brown paper bag, and then in a plastic bag.

5. Storage Of Fresh Fruit

Do not wash any fruit before storing, and don't remove stems first. Sort it carefully and use any damaged pieces immediately. Fruit that is purchased locally should not be bought in large quantities. A week's supply should be the maximum; more perishable fruits like peaches should be purchased in smaller amounts.

Most fruits should be held at room temperature (out of direct sunlight) until they reach the desired degree of ripeness, and then refrigerated for a few days if necessary. (Ideally, the fruit should be used as soon as possible after it is fully ripe.) Thin-skinned fruits ripening in the kitchen must be covered at night, as they may attract insects. Fruits with tough outer coverings (bananas, avocados) need not be covered. Use brown paper bags for this purpose, not plastic bags, which cut off air. Don't wash fruit until you are ready to eat it.

Apples may be stored in the refrigerator without prior ripening. If they were mature when picked, they will ripen in the refrigerator, and most apples will keep well—some varieties better than others. Much depends on their condition when they are stored. Usually Delicious apples are not considered good "keepers" but we have had excellent experience with our Golden Delicious apples. Maximum storage time is supposedly a few weeks, but we have ordered large enough quantities to last two months or longer, with good results.

Most ripe fruits keep best at quite low temperatures (above freezing, of course). If you set your refrigerator at about 42 degrees, it will be suitable for most of your foodstuffs.

There is one important precaution to take when storing apples. They emit a kind of ripening gas, which can spoil other foods. Therefore, apples should be stored covered, or in pliofilm bags, if there is any other unwrapped food in the refrigerator. Unwrapped apples will also absorb odors from other produce, and they will keep longer if stored covered or bagged.

Some fruit, such as *grapes*, *pineapple* and *watermelon*, will not ripen after picking. These should be stored unwashed in the refrigerator as soon as possible, and used within a few days. Maximum storage time for grapes in good condition is five days, but they need to be culled daily. Grapes may be stored in an open container. We use an oblong plastic refrigerator storage box. A whole ripe watermelon may be used gradually over a period of several days. A ripe pineapple should be used in a day or two.

As previously indicated, it is best to buy a ripe *honeydew melon*, instead of trying to ripen it at home. I have had the frustrating experience of holding honeydew melons for weeks—if you buy melons that do not have the signs of ripeness previously described, they may never get ripe. *Other melons*—other than watermelon and honeydew—can be ripened on your kitchen counter, then stored in the refrigerator. When ripe, use as soon as it is possible, within two or three days.

Ripe unwashed *peaches* and *nectarines* will keep fairly well in the refrigerator for a few days (if just barely ripe and not overripe). Peaches and nectarines must be carefully watched and culled.

They may be stored in an open bin or container.

Other ripe fruits may be stored in the refrigerator (*cherries, apricots, papayas, plums*) from several, days to a week, depending on their condition when you move them to the refrigerator. Keep watching, culling and using them. Most fruits may be stored in open bins or containers.

Berries are very perishable, and should be bought for immediate use. Strawberries may keep a day or so, a little better than blackberries or raspberries. Blueberries, if in good condition, may keep a few days. Berries, including strawberries, must be tightly covered.

Japanese persimmons should be eaten when ripe; they do not keep well. They may be stored in the refrigerator a day or two after fully ripe, in a covered container. If you have too many to use before they spoil, they may be frozen successfully, but with some loss of flavor. The *small native persimmons* freeze very well; they may taste even better after having been frozen, if eaten before they are thoroughly thawed.

Fresh, ripe figs need to be eaten immediately—they are extremely perishable—you might be able to store them for one day in a covered container.

Once *bananas* are ripe, their life can be prolonged for several days by storing them in the refrigerator. Bananas (like apples) emanate a ripening gas and should be covered or bagged if other uncovered foods

are stored in the refrigerator. Bananas also emanate a strong odor. Bananas stored in the refrigerator will turn black and look unattractive, but they will still be "good eating" for several days. If you have too many to use up quickly, they may be frozen. Recipes for different ways to use ripe bananas will be given in Lesson 26.

Avocados may be stored in the refrigerator after ripening, but not too long—about three days maximum. If you find that they have gray, black or brown spots when you cut them, cut the darkened areas away and test the good-looking green part by taste. If you have too many avocados that will ripen too fast, try storing them in the refrigerator in their hard state and bring them out to ripen as needed. They will last quite a long time. This will be fairly consistently successful with avocados and will sometimes also work with *mangos*. Other fruits will usually not ripen successfully after having been chilled.

Citrus fruit will keep well for several weeks, sometimes much longer. They may be stored in open bins or containers in a cold room or the refrigerator. Do not store in closed bags.

Kiwifruit may be stored in the refrigerator for two or three days after it feels soft enough to eat. *Litchi fruit* is a little tart when mature and freshly picked. It sweetens as it ripens and should be used before the bright red outer covering starts to deteriorate. It may be stored in the refrigerator for a few days after it has attained its full sweetness. *Loquats* are tart early in the season but have a bright orange color when ripe; they are firm with a little yielding when pressed. Ripe loquats may be stored in the refrigerator for a few days. These fruits may be stored, covered or uncovered.

Mangos may be stored in the refrigerator when ripe, depending on their condition, and may last for quite some time, if they are still a little firm when stored. I recently had a mango that I kept in the refrigerator for two weeks after ripening and it was still perfect, sweet and luscious when it was used by my husband, Lou, the day after breaking his 29-day fast. The mango season was about over and I had saved it for him, hoping it would not deteriorate; he said it was the best one he had ever tasted.

Ripe *pomegranates* may be stored in the refrigerator for a week or so.

These storage tips are generalized, of course. You will need to develop judgment and expertise in nurturing your fruit, which will come through practice.

6. Storage Of Dried Fruit

All varieties of dried fruits will last a long time if properly stored in the refrigerator. Refrigerate your basic supply as soon as it arrives. Store it in tightly closed containers or pliofilm bags, transferring small amounts for current use to smaller, more accessible containers, so that the larger supply will not be subjected to frequent "out-again and in-again" changes of temperature. I have never noticed any loss of flavor, nor had any spoilage, even when I have occasionally had supplies almost a year before they were all used. I buy them mostly from Jaffe, and buy a good supply when the varieties we like are available. Of course, you should always use the oldest supplies first.

7. Nuts And Seeds

In nutritive value, nuts are superior to any other food that we know. According to scientific investigations by Professor Myer E. Jaffa, of the University of California; Professor F.A. Cajori, of Yale University; Van Slyke, Osborne, Harris, and others, the proteins in nuts are superior to those of animal origin.

Nuts are clean, sterile and free from putrefactive bacteria and the waste products that abound in flesh foods (uric acid, urea, etc.). Nuts are free from trichinae, tapeworm and other parasites and infections due to specific organisms.

The planting of nut and fruit trees, wherever possible, would serve a triple purpose: 1. beauty, 2. shade, and 3. excellent food.

The importance of the thorough mastication of nuts cannot be overemphasized. The nut is a dense, concentrated, high protein food and its digestion is more complicated than the digestion of fruits and most vegetables. It is important that every particle be thoroughly masticated—the stomach has no teeth, and even small particles pass through the alimentary canal undigested, because of the inability of the digestive juices to penetrate hard substances. For those with dental problems, nut butters or ground nuts, made from fresh raw nuts, are a suitable substitute.

Nuts should be regularly included in the diet, approximately two to four ounces daily, or in greater or lesser amounts, according to individual needs. Lactating mothers, and people who have undergone prolonged periods of fasting, might need a greater amount (if not beyond their digestive capability) in the initial post-fast period. People on all-raw food diets with the greater nutritional potential of all raw food, might get along well on less. People who use legumes and grains as sources for some of their protein (or cheese) should use similar amounts of nuts. The nuts, of course, should not be used at the same meals as legumes, grains or cheese. The amount of nuts used is an individual matter, subject to some experimentation.

7.1 Purchasing Nuts and Seeds

It is best to buy nuts in the fall, when the new crops are available. The growers, wholesalers and retailers will be handling and storing the nuts until the next fall, in any event, and it is best to obtain your annual fresh supply and do your own storing.

We buy most of our nuts from Jaffe Brothers in October. If we must fill in later, we patronize the local health food store, which does an excellent job of maintaining refrigerated supplies of shelled nuts.

Some people buy a majority of their nuts in the shell, some prefer the convenience of shelled nuts. Unshelled nuts keep longer, but shelled nuts, if properly stored, usually stay reasonably fresh all year. It is difficult to judge the quality of nuts in the shell, and some nuts are difficult to shell.

It is often possible to contact growers of locally grown nuts and purchase those nuts in season directly from the growers. If you do this, you will probably need to dry or "cure" them. This is done by spreading them in an airy place for two or three weeks. Then they will require storing in a cool, dry place. The kernels should be removed from the shells and processed as soon as possible. This is done by putting the kernels into a large flat pan (preferably in a single layer) and into a 140 degree oven for four to five hours, until they feel perfectly dry. Then they can be stored in a covered container, in the refrigerator. These fresh nuts, well-processed, will stay in top condition until the next harvest, or even longer, with no apparent loss of flavor. Not everyone is willing to go to all this trouble, and, of course, there will be varieties of nuts you wish to use that are not grown locally. When you purchase unshelled nuts, presumably they have been put through some kind of drying or "curing" process.

If you buy nuts from your local health food store, you can usually get a discount for a quantity purchase of ten pounds or more of the same variety. Sometimes, if you are a regular customer, you can get the 10% discount, even when you buy, say, only five pounds at a time.

It is usually inadvisable to purchase your nuts in supermarkets, but there are some exceptions. The shells of most unshelled nuts sold in supermarkets have been bleached, treated with lye and gas to soften and loosen the kernels, and possibly colored and waxed. Some supermarkets do carry untreated nuts and seeds. Read the labels for some guidance, but I am not sure how reliable that is.

Shelled nuts in supermarkets are not refrigerated, and unless you purchase them when the shipments first arrive, are subject to more rapid deterioration than refrigerated shelled nuts.

Since nuts are not as perishable as produce, it is a good idea to buy the best, by mail, from Jaffe Brothers or some other reliable source. They have shelled or unshelled nuts available, some organically grown, and all much better quality than are available elsewhere.

Of course, all of your nuts should be raw and unsalted. So-called "roasted" nuts are actually "French-fried" and heavily salted. You should not use "dry-roasted" nuts either. Heated fats may be carcinogenic, and nuts are high in fat.

7.2 Selection of Certain Varieties of Nuts and Seeds

Pumpkin seeds and such nuts as *macadamias*, *pignolias* (pine nuts) and *pistachios* are excellent, but usually so expensive that it is much more practical to utilize *sunflower seeds* and such nuts as *pecans*, *almonds*, *filberts*, *Brazils*, *walnuts*, *Indian nuts* and *cashews*. You can use any nuts that are raw and unsalted.

If you particularly like any of the more expensive varieties, you could have some on hand for use in small quantities, as a treat, along with other less expensive nuts. It is a good idea to use as many varieties as possible (not all together!) from time to time, because the different varieties of nuts and seeds vary in their content of nutrients, particularly certain amino acids. For example, Brazil nuts and filberts (hazel nuts) contain greater amounts of the essential amino acid, methionine, than any other nuts, while the almond contains a greater amount of the essential amino acid, valine, than do other nuts.

The bitter almond contains considerable quantities of prussic acid and is not recommended. Other varieties of almonds are excellent food, but the brown skin still contains small quantities of prussic acid, so it is best to blanch them. Blanched almonds are sometimes available, but it is much better to do your own blanching. (Instructions in Lesson 26.)

The almond is one of the best of all nuts, and a rich source of protein. It is the only one of the true nuts that has a somewhat alkaline reaction in the body.

The cashew is not really a nut—being the pistil of the cashew apple, which has been heated to make it edible—but it is used and classified as a nut.

Peanuts, *coconuts* and *chestnuts* are in different categories than the nuts mentioned above.

Peanuts belong to the legume family. They are not as good food as true nuts, nor do they have as good a flavor in their raw state. Some people enjoy raw peanuts and use them, but they are subject to some of the same problems encountered with other legumes (difficulty in digesting, producing gas in the digestive tract). Some Hygienists use raw peanuts (and raw peanut butter, which, when used, "should be made fresh at home and used quickly, so it does not become rancid). Ordinary supermarket peanut butter should not be used. The peanuts are made indigestible by long periods of roasting and large amounts of salt are often added. Then the peanut butter is hydrogenated, so the oil will not separate and rise to the top. Those who do not enjoy the flavor of raw peanuts and raw peanut butter sometimes use peanut butter made to order from slightly roasted peanuts in the health food stores. This is much better than the heavily roasted, salted, hydrogenated variety, but is still not recommended for regular use.

Coconuts contain the only saturated fat in the plant kingdom. Coconut meat is best when it comes from the, fresh coconut. Dried coconut which has not been treated with chemicals is available from Jaffe, Walnut Acres or your health food store. Coconut meat is alkaline in metabolic reaction.

Fresh coconuts are available in supermarkets. Their peak season is October through December.

Coconuts should be heavy for their size and sound full of liquid when shaken. Examine the eyes (the three small circles at one end). If you detect wax over one or more eyes, or any evidence of tampering, the coconut has been opened, the coconut liquid drained and the coconut refilled with water. The extracted liquid is used in manufacturing certain pharmaceuticals.

Chestnuts are available in supermarkets In the fall and early winter. The chestnut is usually roasted before eating, though some varieties (those not bitter) can be eaten raw. The chestnut is alkaline in metabolic reaction. Instructions for preparation will be included in Lesson 26.

Peanuts, coconuts and chestnuts all contain starchy protein.

The principal edible seeds are *sunflower*, *pumpkin*, *sesame* and *squash*. We use mostly sunflower seeds, which are the best buy and are very high in nutritional value. A meal containing, sunflower seeds and dark, green lettuce plus tomatoes and other nonstarchy vegetables, is excellent. If you are really concerned about getting all the nutrients at one sitting, including all the essential amino acids, this is about as close as you can get. Of course, Hygienists know that it is not necessary to get all the nutrients at one meal, and most attempts to do this result in overeating and some atrocious food combinations.

Actually, no conventional meal supplies all the nutrients, not even the much-vaunted "complete and high quality protein." Much of the food served in conventional meals is cooked or otherwise processed, thus destroying all the enzymes, and damaging and altering all the other nutrients. The so-called complete protein of animal foods would only apply to the entire animal. Muscle meats (most commonly consumed) and organ meats are deficient both in protein and calcium. After separation and heating, the amino acids from enzyme-resistant linkages, and the biological value of the protein has dropped some 50%.

A well-planned Hygienic diet does provide all of the nutrients, and provides a very favorable sodium-potassium ratio and a favorable calcium-phosphorus ratio.

No food is complete in itself, but sunflower seeds come very close. These little kernels contain practically the whole spectrum of important nutritive elements, including quality protein. They also contain about every known vitamin except Vitamin C—and even develop this one when sprouted.

Moreover, sunflower seeds contain highly digestible polyunsaturated fatty acids. They contain Vitamin E, which prevents the rancidity of the oils contained in the seeds, and this is one of the few sun-following plants which contain Vitamin D. Sunflower seeds contain generous amounts of Vitamin A, B-complex factors, Vitamin K, and a bonanza of minerals and trace elements, including potassium, iron, calcium, phosphorus, magnesium and zinc.

The American Indians used sunflower seeds for food long before white men arrived. In Middle Eastern countries, they're included as a regular course at meals, much as we serve salads. In Russia, sunflower seeds are the national snack, as regular as popcorn and peanuts here. Russian czars are said to have fed their soldiers successfully on two pounds of the seeds daily in their rations.

Sesame seeds pose some problems. They are small and perhaps difficult to masticate, and therefore some people like to grind them and sprinkle them over the salad. Unhulled, or brown, sesame seeds are somewhat toxic and should not be used. The usual hulled, white sesame seeds are even worse, because bleaches and toxic solvents are used to remove the hulls;

Acceptable hulled sesame seeds, hulled mechanically, are now available. If you want to use sesame seeds occasionally, these are the ones to get.

8. Storage Of Nuts And Seeds

If you buy the best and freshest nuts available, in season, you can store them until the next year's harvest. Unshelled nuts may be held at room temperature for a few months, sometimes as long as six months, except in very warm weather.

Formerly, I stored my reserve supply of nuts in the freezer, where they remained stable and fresh-tasting. We never observed any loss of flavor or texture. Of course, nuts do not freeze, even in the freezer, because their water content is very low.

When a food is frozen, its water content expands, causing bursting of the cell walls, and spilling of the contents, thus destroying the cell. When the food is thawed, a loss of texture is observed. A loss of nutrients also occurs, due to oxidation. Decomposition speedily follows thawing if thawed food is not used immediately. There is also some deterioration which occurs while the food is frozen.

Nuts do not contain enough water to expand and burst the cell walls. Nuts which have not yet been harvested seem to suffer no damage from being stored at freezing temperatures and remain fertile after having been exposed to below freezing temperatures. The question is, does the situation change after harvesting, and can the freezing temperatures then have adverse effects?

Calvin Arnold, director of Agricultural Research in Monticello, Florida, says that freezer storage is the best way to maintain the quality of pecans, in or out of the shell. He says that if they are frozen soon after harvesting, they can last several years. He warns that you should not ever try to refreeze them after thawing. This would seem to indicate that changes do occur as a result of freezing.

In March 1977, I read a report in Consumers Digest which led me to change my practice of storing nuts. This report pointed out that nutrient loss is caused by very high and very low temperatures, and that freezing temperatures particularly destroy Vitamin E. Since Vitamin E is a significant factor in nuts and seeds, I decided to discontinue the storage of nuts in the freezer. Results: excellent!

As of this writing, November 1981, I have just finished last year's supply of shelled pecans, which had been stored in moisture-proof pliofilm bags in my refrigerator, and started on my fresh supply. Amazingly, they both tasted about the same: fresh, tasty, crisp and flavorful. There was no sign of rancidity and no loss of flavor or texture from the year's refrigerator storage at about 42 degrees.

We buy our seeds (sunflower, sesame, pumpkin) as needed, usually five or ten pounds at a time, from Jaffe or the health food store, and store them in the refrigerator of course. We use more than sixty pounds of sunflower seeds in a year (two people), so we don't attempt to buy the whole year's supply at one time. We use sesame and pumpkin seeds in quite small quantities.

If you are still "sold" on storing your nuts in the freezer, you might compromise by storing a several months' supply in the refrigerator and the balance in the freezer.

Chestnuts are quite perishable. They lose moisture and spoil. If fresh, they will keep in the refrigerator, tightly covered, for up to a week.

Fresh coconuts, in the shell, will keep at room temperature for a month or more. They will keep longer, in moisture-proof pliofilm bags in the refrigerator, depending on how fresh they are. After a coconut is opened, the coconut meat will stay fresh a few days in a jar, submerged in the liquid from the coconut, or submerged in water. For longer storage, fresh grated coconut can be submerged in the coconut liquid and frozen in containers.

Dried coconut may be stored in the refrigerator, in a moisture-proof bag, for a month or longer; in the freezer, almost indefinitely. It is never a good idea to store food in the freezer more than six months to a year.

Peanuts, shelled or unshelled, will keep in moisture-proof containers in the refrigerator for at least several months. Peanut butter is a different story, of course. If you use peanut butter, it is best to make it or get it fresh in very small quantities, as peanut butter, or any nut butter, is subject to rancidity. If necessary, nut butters may be stored in the refrigerator for about a week.

9. Questions & Answers

Are English walnuts and black walnuts preferred varieties?

> They are both more acid in metabolic reaction than other nuts, so it would be advisable to use them only occasionally.

I find sesame seeds difficult to chew. Is it advisable to grind them?

> It is all right to grind and sprinkle them on your salad. Some people are able to chew them well, but if you don't, they will pass through your system without assimilation.

Is it better to use frozen organically grown fruit, or fresh fruit that is commercially grown?

> If it is your own fruit, and you have rushed it from the tree to the freezer, without heating, sugar or other additives, and you eat it just barely thawed, it is quite a good product, but never as good as the freshly picked fruit, eaten ripe and fresh from the tree, with no loss of flavor, texture or nutrients. If you use this frozen fruit, you should also use some other fruit that is not frozen—even though it is not organically grown—to be certain to obtain from this fruit whichever nutrients may have been damaged or destroyed in the freezing and thawing process.

In the winter in the north, there are few varieties, of good quality fresh fruit available. What should I do about fruit meals at that time?

> I can tell you what we do. Of course, citrus is available all winter, and it is possible to have organically grown citrus shipped from Florida. We live in Florida and use citrus regularly until melons are again available. We do realize that people who live in the north may not find citrus as agreeable or well-tolerated as people who live where the citrus grows.
>
> I have told you how to get organically grown apples. We get enough to last most of the winter. We use some grapes, and some pears. Bananas are always available. Avocados are usually also available. Kiwifruit is now available through the year, and you can usually find pineapples also.
>
> In the winter we usually use more dried fruit. When a variety of good fresh fruit is available, we use dried fruit only occasionally. In winter, we like to use more of the less-sweet varieties of dried fruit, such as organically grown dried apples (when we run out of fresh ones), organically grown raisins (when we don't have grapes), organically grown dried cherries, and soaked organically grown dried apricots. We also use some dates and figs, sparingly, because they are so sweet. We use only one variety of dried fruit in the course of one day.

We also use some of our frozen peaches and frozen figs from our own trees.

Article #1: Does Freezing Harm Foods? By Marti Fry

We know for certain that heating foods (that is, cooking) destroys foods by changing their chemical and organic structure. Proteins are coagulated (fused and hardened) and their amino acid molecules are broken up (deaminized), thus making them unusable. Carbohydrates (starches and sugars) become partially or wholly caramelized, though this is not readily detectable in the earlier stages of cooking. Caramelized sugars are indigestible, hence toxic to the body. Minerals are changed to their unusable and poisonous inorganic state and vitamins are largely, if not wholly, ruined.

The question arises whether the opposite extreme, freezing, likewise alters the chemical and organic structure of foods. Let's pursue this method of food preservation.

First, we should note that freezing does not affect foods of little water content—nuts, seeds, dried legumes and dried fruits lose nothing by freezing. In nature, seeds and nuts remain fertile no matter how cold it gets. The more water a food contains, the more it is adversely affected by freezing.

When a food is frozen, its water expands. This causes two immediately destructive occurrences:

1. The cell walls burst and the cell contents are spilled due to the internal water expansion; hence the cell's life is lost.
2. Oxidation occurs where air reaches the frozen foodstuff; hence nutrients are lost.

In addition to bursting the cell walls of foods and thus allowing oxidation to occur, two other things happen:

1. When the cells burst, certain of their organelles release self-destruct enzymes called lysosomes. While these enzymes are not active during freezing (and some are even destroyed), those which remain intact will speedily decompose the cell contents upon thawing. Lysosomes are in cells for the purpose of self-destructing dead cells so the dead cells will not create problems for the organism.
2. Whether oxidized or deranged by its own lysosomes, dead cells become soil for bacteria and fungi when the temperature becomes favorable again—bacteria are active at just above freezing up to temperatures around 160 degrees.

Oxidation of burst cells is the foremost cause of food deterioration during frozen storage. Frozen foods never taste as good to an unperverted palate as their fresh counterparts, even if no additives and pre-freezing treatments are employed. This is, of course, due to their deterioration while frozen.

While microorganisms such as bacteria are also inert during freezing, they become active just as soon as they are thawed. Hence, frozen foods, once removed from the freezer, decompose much more rapidly than do fresh foods. As mentioned, this is because of the bursting of the cell walls of the food when its own water expands and because of the subsequent decomposition through oxidation, self-destruct lysosomes and the final cleanup crew, bacteria.

It is well to repeat that food is rapidly destroyed when cell walls are burst, whether by cooking, blending, juicing, mashing or freezing. Oxidation occurs when cell contents are exposed to the air, and if temperatures are favorable, the cells' own lysosomes self-destruct its components.

Does this mean that banana "ice cream," fruit "smoothies" made with frozen bananas, and other frozen foods aren't truly healthful? Well, unfortunately, YES! Frozen foods have a similar effect on our organism as lightly steamed foods. Frozen foods should be used in moderation if at all. They may be helpful in inducing people to change over to their natural diet, especially people who are not willing to give up frozen treats such as ice cream Or some kind of dessert. Banana "ice cream" is a fair substitute and is far less harmful than frozen products containing additives, sugar, milk, honey, etc.

Also, remember that in our stressful environment, foods which digest quickly give us fewer problems than foods slow to digest (cooked foods, frozen foods and foods rich in oils and proteins such as nuts and seeds).

Frozen food must remain our stomach until it is warmed to body temperature. This delay can lead to fermentation of fruit sugars before the food reaches the small intestine for absorption. If we become emotionally upset (angry, irritated, annoyed, frustrated, etc.) while there is food in our stomach, digestion will be suspended and discomfort may follow.

Easily and quickly digested foods such as fresh fruits, on the other hand, will result in much briefer and less intense discomfort if you experience any stressful emotions.

Whenever you wonder which foods are best for humans, just look to nature for answers. Nature's only food storage and preservation method is drying. Fruits and berries will dry on the tree or vine if birds, insects or humans don't get to them first. Peas, beans and other legumes will dry when left in their pods. Dried foods which are frozen are not harmed because of their extremely small water content: there's not enough water to expand and burst the cell walls.

Nature provides us with food during every season. Thanks to modern transportation and refrigeration methods, people in northern climates can eat relatively fresh food the year round. Unsulphured dried fruits are available in many health, food stores. In most cases we are better off using fresh or dried foods than foods which have been frozen.

Article #2: Your Probing Mind By Dr. Virginia Vetrano

I heard that sunflower seeds must be regarded as a cereal product and that, although they contain good protein, etc., they really are not good Hygienic fare and should not be used very much. What is your opinion?

> Although sunflower seeds are plant seeds, they are not grass seed. The chemical composition of cereal and sunflower seeds is quite different. Most cereals contain from 60-70% carbohydrate, 7-16% protein, approximately 7% fat and 1-3% mineral matter. The composition of sunflower seeds is 19.9% carbohydrates, 47.3% fats and 24% proteins. There is a higher percentage of protein in sunflower seeds than in cereals and a much lower percentage of carbohydrates. Sunflower seeds also contain more fat than ordinary cereals, thus making their composition more like nuts than cereal. They are very easily digested and should definitely be used in the Hygienic diet.

I have just read of the unhealthful effects of food packaged in plastic. Is plastic next to food truly detrimental to our health?

> Yes. Foods, being composed of semi-solid materials and most of them containing acids, will

have a tendency to absorb some of the poisonous chemicals from the plastic. Food that has been adjacent to plastic should not be eaten.

Carbon, hydrogen, oxygen, chlorine, and sulphur are some of the common elements used in making plastics. The plastic chemist gets his elements from such substances as coal, petroleum, and cellulose from cotton fiber. Salt, air and water are also used. Fillers are added to the plastic resin before the finished product is made. Some fillers which are added are wood flour, cotton, asbestos, mica, and cold plasticizers are often added to make what would normally be a hard plastic into a soft pliable plastic. Coloring agents are also added. Transparent sheets of plastic are usually basically composed of formaldehyde and urea. If used with acid foods, the plastic tends to dissolve into the food and render it toxic. No fumes seem to exude from cold plastics. However, allergic dermatitis and other ailments are often developed in those working with the chemicals used in the manufacture of plastics.

Although carnivores, whose digestion is adapted to flesh, can live successfully on a frugivorous diet, the frugivores do very poorly on a flesh diet. Is the above statement entirely true? If so, could you explain why?

It is a well-known fact that carnivorous animals living naturally in the jungles partake mainly of fruits during certain seasons of the year. Otto Carque and many other naturalists think that, in the beginning of life, there were no carnivorous animals, and that they became so because of the ice age or other stressful changes in the environment. We see a change in dietary habits today in the anthropoid apes. As they are squeezed out of their natural grazing areas by civilization and forced to live in too small a grazing area, a few of the group will be found partaking of eggs, or termites, or ants or sometimes they will kill a smaller animal and eat it like a carnivore.

The observation indicated by the question is quite true. Carnivorous animals can be fed vegetarian diets and thrive in excellent health as a result of the diet. The reason for this is that vegetable fare produces less wear and tear on the organs of purification and elimination than does animal fare. The kidneys, liver and digestive glands are worked less and the animal is better nourished by vegetables than when he is fed flesh and animal products, cooked and lacking in alkaline minerals.

When you place man on a diet for which he is not adapted, this places a stress on his organs of purification and elimination. As he has never adapted to the carnivorous diet, his liver is smaller than that of a carnivore and he cannot detoxify and purify the poisonous products inherent in flesh food as well as a carnivorous animal. His kidneys are also smaller and become diseased from the overwork caused by a diet too high in protein and toxic material incident to the consumption of flesh, eggs and other animal products.

Please comment on the current craze for high roughage foods, like eating bran every day.

Many years ago Graham and other health-minded pioneers emphasized the importance of whole foods, containing all of their natural bulk. It was their idea to teach people to eat unprocessed foods such as fruit, vegetables, nuts and whole wheat containing all its bran. Constipation, they said, stems from eating foods which have been robbed of their bulk by processing.

Commercial-minded citizens soon found a means of exploiting this idea. "Put some bran in your diet and ban constipation forever." From then until now people have been prodding their bowels to action by using bran. This was not the idea behind Graham's education. He was urging that the entire diet be changed and that it include the bulk of all natural

unprocessed foods. He was not advocating fragmentation of foods.

Actually, using a lot of bran overworks the bowels, and it is totally unnecessary if one is on a natural diet containing all unprocessed and uncooked foods. Bowels will function as they should when foods natural to man's digestive tract are eaten. The whole wheat berry contains the bran natural to it. The bran is the skin of the wheat. It should be taken in proportion to the wheat if wheat is eaten, not as a fragment of a part of the wheat.

Is the transparent skin covering each section of grapefruit and orange of any nutritional value? Should it be eaten?

The skin covering sections of an orange may be and should be eaten with the orange, but the skin of the grapefruit has a bitter quality, and the general Hygienic rule is that if a substance is bitter to the normal unperverted palate, then it usually has a toxic quality to it and should be shunned as food, even though it may contain minerals and vitamins. The blossom of the poppy plant, containing opium, also contains minerals and vitamins. Just as the animals in the wild rely on their taste buds to guide them to their natural food, so man must rely on his sense of taste. Instinctively we do not like bitter things and would shun them if we were not wrongly educated.

Article #3: Figs

What a treat figs are when picked fully ripened from the tree. I have experienced this a number of times and cannot think of a meal more satisfying.

Historically, the fig has been used as food for thousands of years by many cultures throughout the Mediterranean area. This is considered to be its native habitat, although it can be cultivated in all warm, temperate zone climates.

There are four main commercial varieties: the Black Mission, the Adriatic, the Kadota and the Smyrna, of which the Calimyrna is a variety. These can be distinguished from one another by their unique coloring. The Black Mission is dark purple or black-skinned with pinkish meat; the Adriatic is green-skinned with meat resembling raspberry jam; the Kadota is also green-skinned but the meat is light colored; and the Calimyrna is gold-skinned with light brown meat. (I am not familiar with other Smyrna varieties.)

In chemical composition, the fig closely resembles that of human milk, especially in regard to the proportion of mineral salts. Quoting from Otto Carque in his masterful treatise, *Rational Diet*, he says, "While the percentage of fat in mother's milk is higher, the fig contains more fruit sugar, thus furnishing the same amount of heat units per ounce. It will also be noted that the important elements of sodium, iron and sulphur are contained in larger proportion in the fig than in milk and wheat."

"The growing child, on account of increasing muscular and mental activity, needs more of these elements to carry on the process of oxidation and elimination. These elements must be more frequently renewed than others, and a sufficient supply of them in our food is a matter of great importance. In all cases of physical and mental exhaustion, the fig is, therefore, of exceptional value in replenishing the vital forces of the body."

So if you are fortunate enough to have access to this exceptional taste treat, please enjoy figs as a, fruit

meal with other sweet fruits, or better yet, eat them alone and appreciate their unique flavor.

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Article #4: Imagine Avocados—As A Dieter's Delight By Lincoln Kaye

Avocados have an image problem.

Everybody knows they're good, but this isn't enough.

Say avocado, and most weight-conscious people say "no thanks." Let's face it—they have a lot of calories. But it's not as bad as you thought; you get a lot of nutrition for those calories.

A 1-pound avocado supplies 70 percent of an average adult's daily needs for Vitamin C, a fifth of needed Vitamins A, B1 and B2, a third of the daily Vitamin B3 requirements, and generous portions of such vital minerals as iron, phosphorus and magnesium.

All this comes at a relatively high calorie cost-about 480 calories in the 1-pound Florida avocado. This reflects the avocado's makeup, which is about 12 percent oil and 8 percent carbohydrate—more like a nut than fruit.

But, as fattening foods go, an avocado's calories are relatively "clean." The fats occur in simple, easily assimilated molecules that are cholesterol-free and low in sodium.

Avocados are among the most ideal between-meal snacks for dieters, according to experts at the Institute of Bariatrics (fat studies) at Cedars of Lebanon Hospital, Miami Beach. Since most people eat them fresh, "the essential fatty acids in the avocado remain unrefined. They retain the nitrogen compounds that act as chemical 'tags,' to let the liver know how to break down and use them.

"The fats in the avocado will not be turned into bulge. They'll become energy reserves, lining membranes for the nerves... The same goes for the carbohydrates in the avocado. They're complex carbohydrates of the type that everybody needs. The body knows what to do with them." But many remain skeptical. As one Weight Watchers International director explains it, "I'm no more of a nutritionist than anyone else in our group. We're all just former fat people."

"But I DO know that avocados are definitely off our list, at least in the beginning stages of our weight-loss program. They're simply too fatty."

The avocado is still largely unknown outside the Western Hemisphere. Europe's culinary Bible, Larousse Gastronomique, dismisses it as a nut-like fruit "much prized by the Americans."

But Latin Americans have traditionally taken a different view from Europeans, esteeming the avocado even in pre-Columbian times.

Legend has it that the 16th century Aztec emperor Montezuma entertained Hernando Cortes with a feast featuring avocados upon the conquistador's arrival in Mexico.

The Spaniards, entranced with the new fruit, were supposed to have murmured "bocados", meaning "what a mouthful!" Which accounts, we are told, for the avocado's name.

The Random House Dictionary of the English Language offers a different—and more plausible-story of the word's origin. "Avocado" is reportedly a corrupt pronunciation of the Nahuatl Indian word for testicle.

If so, the allusion might be to the fruit's appearance or its supposed aphrodisiac properties.

Unripe supermarket avocados can be hurried along if buried in a bin of flour or rice or put in a paper bag.

They're ripe when they yield a little to the touch. Don't wait until they start developing dark or soft spots; that means they're starting to spoil.

Never cut an avocado before it is ripe; the flesh will be hard and bitter and will never mature. Fully ripe avocados will keep for a few days chilled. They don't freeze well unless pureed.

If you're only using half an avocado at a time, leave the seed in the remaining half to keep it from spoiling in the refrigerator. After it has been cut, the fruit will discolor a little; scrub it with a slice of lemon or lime to somewhat restore its bright chartreuse color.

The avocado's leathery shell makes a natural—even elegant—dish from which to spoon the tender flesh. A halved avocado, garnished with just a little lemon juice if desired, can make a satisfying light lunch or snack unto itself.

Part of what makes it so elusive is the chameleon quality of an avocado's flavor. The cup-shaped depression left when the pit is removed is an ideal spot for adding whatever you wish. The fruit also takes on some of the flavor of whatever you add.

Article #5: "Natural" Foods By Joanne Will

Definitions and Standards Vary Among Food Companies

What are "natural" foods? It depends with whom you talk. The term has varied meanings to consumers. Food companies have established definitions to suit their own products. Retail outlets from food stores to health food outlets have their own idea of what "natural" foods may or may not be.

The federal government has no established standards for the use of the term, though guidelines for its use have been proposed in the food advertising regulations of the Federal Trade Commision (FTC), expected to be acted upon by Congress this fall.

But for now the term is up for grabs, and that's a confusing situation.

"Natural foods are those that do not contain any man-made substances or any chemical preservatives," says Dick Peterson, a food shopper who seeks out "natural" foods. "Fresca is a totally unnatural drink," according to Peterson. "I gave up drinking, it when I read the ingredients listed on the can," he said. "It's just like Chemistry 101."

Another consumer also described the term by what it isn't. In her mind, Jell-O with its artificial coloring, flavoring and sugar, is exemplary.

Others see "natural" as foods which are organically grown with natural fertilizers. Artificial coloring is prohibited in some people's definition. Added sugar is considered a no-no by others.

Ever since the term natural became a selling point, food companies have tempted shoppers with products so labeled. But definitions and standards vary among food companies. Quaker Oats, for example, has developed a definition of natural as it applies to its products. It states that "A food or a blend of foods

derived entirely from components as they are found in nature (water lost on dehydration excepted) may be considered as natural. Such food or blend of foods may be processed to the extent that inedible or non-nutritive substances are removed, or if only inconsequential amounts of nutrients are removed, or if only the form of the food is changed."

Pillsbury discourages the use of the term natural when referring to its products, although two of them, bottled apple juice and unbleached flour, are touted as natural. Its use of the term relates to a product that has a minimal amount of processing, or as with unbleached flour, the product is "naturally" aged. Kraft uses the term natural on its cheese products to distinguish them from the processed variety. The company also has a group of dairy products promoted as natural. These products are formulated with ingredients that are not synthesized. "We try to use the term natural only as we think consumers perceive it," a legal spokesman for the company said.

If the FTC food regulations are adopted as proposed, a standard for the use of the term in advertising would provide these boundaries for determining the claims in food advertising: "Advertising shall not represent that a food is natural or a natural food if: (1) Such food has undergone more than a minimal processing after harvest or slaughter, where minimal processing may include: the removal of inedible substances, the application of physical processes (e.g., cutting, grinding, drying or pulping) that change only the form of the food; and/or processing necessary to make the food edible or safe for human consumption or to preserve it; (2) Such food contains any artificial flavorings, color additive or chemical preservative (as defined by the Food and Drug Administration) or any other artificial or synthetic ingredient; (3) Such food is composed of two or more ingredients and one or more of such ingredients could not be represented as natural or a natural food in accordance with this paragraph."

But these probably are not the final standards for advertising natural foods in the FTC regulations, which also address the use of such terms as energy and calories, organic foods, health foods, fatty acids and cholesterol. The FTC proposal has yet to be modified to reflect the opinions of consumer, food company and health food groups who responded during the public comment period.

There is concern by the FTC staff as well as such groups as the Institute of Food Technologists that if a food is labeled "natural," it will imply the product is superior to processed foods in terms of nutrient content and safety.

The Department of Agriculture in the state of Maine recently passed a regulation introduced and supported by the organic farmers and gardeners association in the state, which wanted to police their own industry. The law establishes guidelines for the use of the terms natural and organic on food labelling or advertising, and sets down definitions of "minimal processing" and "raw agricultural commodity."

It prohibits the use of the term health food on product labeling or in advertising, but allows the use of the term to identify a store or restaurant as such. Additionally, it prohibits that a food advertised as natural or organically grown make claims that it is superior in nutrient content or safety.

In Maine, growers, processors and sellers must keep records of crop locations, additions to soil, ingredients and suppliers for two years after the food is sold and which must be supplied on demand to the State Department of Agriculture.

Enforcement is left to the courts, but there are some loopholes in the law, according to Daniel Harlan, assistant to the commissioner of agriculture. The law allows for certification but does not say who will do the certifying of products. It also states that the Department of Agriculture has no "affirmation obligation" to enforce the regulation. The regulation does not go into effect until January 1980, and Harlan expects some adjustments will need to be made as "we get experience."

Whatever the outcome of the Maine regulation and the proposed federal guidelines for advertising, it's likely that fewer products will carry the term "natural" in the future.

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